

V. IDENTIFICATION OF MAIN BARRIERS

After defining the vision and mission statements, the group identified numerous obstacles to sustainable building. The following is a list of the main obstacles, grouped into three categories: Information, Regulations & Processes, and Incentives:

INFORMATION BARRIERS



There is no consensus as to what “sustainable building” means, what the minimum performance standards are, what activities are environmentally stressful, what the economics are, and how to evaluate or measure it.

Ask any two people to define “sustainable” or “green building” and you will probably get two different responses. Some regard meeting the energy code as building sustainably while others regard this as simply meeting the absolute minimum requirements. Some published definitions of sustainable building are vaguely defined and left to interpretation. Without an accepted, specific, working definition of sustainable building, it is difficult to promote the concept, identify goals, and measure the results.

There is no public policy defining why sustainable building benefits the City of Seattle and promotes the public good; and there is a lack of success in effectively communicating the benefits of sustainable building to the industry.

Sustainable building is more than doing the “environmentally right thing”. Using resources more efficiently also provides economic benefits to the city, the building industry, and building occupants. Sustainably designed buildings further provide for a more comfortable and healthier environment, resulting in increased productivity and reduced sick leave. All tangible benefits pertaining to all stakeholders need to be defined and communicated in order to effectively promote sustainable building on a large scale.

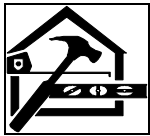
The vast amount of information currently available has not been successfully integrated and effectively disseminated or promoted.

A tremendous amount of information on green building already exists. There are numerous publications, web sites, databases, products, incentive programs, and other information around the City, country and the world. However, most of the information is dispersed, and few architects, developers, project managers, and others have the time or money to conduct the necessary research.

Bad experiences and poor product performance from the past deter people from incorporating sustainable building practices today.

Some resource-efficient products that have been introduced in recent years have not performed as well as expected. One commonly heard complaint is the need to flush twice with low-flow toilets. Although this is true for some models, there are many other models that perform very well. Consumers need to be informed about what product features to look for in a toilet. Another example is plastic lumber. When first produced, plastic lumber failed to perform in some applications. Today, however, the product has been reengineered and greatly improved. Nonetheless, because of poor past performance there is still a misperception about the quality of plastic lumber.

REGULATORY & PROCESS BARRIERS



There is a perceived and real inconsistency between sustainable building practices and codes and regulations.

Because of the numerous sets of codes, regulations and requirements that apply to the building industry, it is not surprising that some may be inconsistent with the goals of sustainable building. Some of these may be perceived (but not real) inconsistencies due to a lack of understanding or misinterpretation of the regulation/requirement. Others may be real inconsistencies due to an attempt to meet a different set of goals. For example, in downtown Seattle it is often prohibitively expensive to obtain a street-use permit on a construction project. As a result, the project is unable to site additional containers to recycle construction debris.

It is unclear from the various codes and regulations whether sustainable building is a priority for the City, and if it is, there is a lack of information as to how to achieve sustainable buildings and landscapes.

Because various codes, regulations and processes were established by various agencies to meet a variety of goals, it is not clear from existing codes, regulations and processes whether sustainable building is a priority issue for the City. Nor is it clear how sustainable building goals are to be achieved on a holistic level.

There are few if any benchmark standards or minimum performance standards for certain sustainable building issues.

Because some sustainable building issues, such as irrigation and job-site recycling, are not currently required, the minimum performance standards are undefined.

INCENTIVE BARRIERS



There is a lack of information about the inherent long-term economic benefits of sustainable building.

Many of the benefits of incorporating sustainable design and construction elements occur during the life of the building, such as reduced energy use and thus reduced utility bills. Other benefits take the form of reduced worker sick leave and lower operation and maintenance costs. These long-term savings should be, but usually are not, considered so that the entire life-cycle costs of the building are determined.

The reality is that first cost is the overriding concern among financial institutions, investors, etc.

Even if project managers choose to look at life-cycle costs with resulting higher first costs, they may not be able to secure larger loans for their project.

There is a lack of integration among various incentive programs (rebates, loans, technical assistance, and recognition programs), and a lack of understanding about how to apply and receive incentives.

The City currently offers several incentive programs to the building industry. However, many people are unaware of the variety of programs offered. Furthermore, most programs are dispersed among various departments -- there is no one-stop-shopping for City incentive programs, and those applying for incentives in one department are often not informed about incentives offered by other departments. Some programs require a significant amount of paperwork and a slow turn-around time, making them somewhat intimidating and less attractive to prospective applicants, especially first-time users.

Most current incentive programs are aimed at the developer, not at the people designing and constructing the building.

A single building project can employ dozens of consultants and contractors (architects, general contractors, sub-contractors, landscape architects, etc.). Each group, particularly those on the design team, can influence the way the building and landscape is designed and constructed. However, most financial incentive programs are targeted at the developer, thereby providing little incentive to those carrying out the work to build more sustainably.

The building industry faces a tremendous amount of risk (regulations, finances, public opinion) and is constantly managing that risk. Sustainable building is often perceived as an additional risk.

Asking the industry to design and build in a more sustainable manner is asking the industry to change the way it fundamentally does business. Change is difficult for anyone, but it is particularly difficult for an industry that, by necessity, is conservative because of all the risks it faces.

Utility rates in Seattle are low and can be a disincentive to any sustainable building practices that raise first costs.

Relative to other parts of the country, Seattle's electrical energy and water rates are very low. As a result, the payback period for incorporating some of these resource-efficient measures can be prohibitively long. Thus, practices which may be cost-effective in some parts of the country and the world may not be cost-effective in Seattle.

VI. OVERALL RECOMMENDATIONS

No single activity or policy will move sustainable building efforts to the point where it becomes common, everyday practice in Seattle. In addition, the current approach will not be able to transform the market as quickly as possible. Rather, what is needed is for the City to implement a package of new initiatives to overcome the barriers described in the preceding pages. The following recommendations recognize that different strategies appeal to different segments of the market. Some building professionals simply need the right technical information to change their design practices, while others need an incentive to change the way they normally do business.

The recommendations outlined below are not listed in terms of priority. The Task Force and Advisory Group believe each recommendation is equally essential to effectively promote sustainable building. Looking at this package of initiatives as a whole, a timeline has been laid out to show the preferred sequence of events (page 27). It may be appropriate for the recommendations to be implemented in an incremental fashion, with the low-budget or no-budget items occurring first, followed by the larger budget items in subsequent years.

The first recommendation calls for the development of a sustainable building **Primer** -- a simple document which defines sustainable building, how to get there via the City's incentive programs, and why it is important. A critical component of the primer will be to develop sustainable building performance guidelines (part of the "how to" portion of the document).

The next recommendation is for the City to adopt a **sustainable building policy** for all new City-funded construction projects. This could be accomplished by requiring the use of the Primer's performance guidelines or using other existing guidelines, such as the criteria developed by the US Green Building Council.

Once a common foundation has been established by the Primer, the City should **review codes**, regulations and other requirements that pertain to the building industry. The purpose of this would be two-fold: 1) To identify codes that are perceived barriers to sustainable building and clarify that they are not real barriers; 2) To identify, evaluate and recommend appropriate changes to codes which conflict with sustainable building.

In addition to ensuring that regulations do not impede sustainable building efforts, the City should provide the industry with the tools to put sustainable building ideas into action. One method is to create a **Resource Center** to make information more accessible to those conducting research on green building products, technologies and practices. A wealth of information about sustainable building already exists but is scattered among hundreds of companies, agencies and other organizations throughout the world. One-stop-shopping for this information is an item that the Task Force strongly recommends.

Education and outreach is also key to getting sustainable building into the mainstream. Workshops, seminars, and other education of City staff (e.g. building inspectors) and industry professionals need

to continue and expand. For many, this education will be an introduction to sustainable building ideas, while for others it will provide the latest information to continually do better.

The City should also continue to provide financial **incentives** to the building industry in order to move the market. Although a life-cycle cost analysis usually validates the long-term cost-effectiveness of a sustainably designed project, green building practices often increase up-front costs. As a result, some developers and builders may need an incentive to incorporate resource-efficient technologies in their projects. In addition, upon review of the existing codes, the City may want to consider offering new incentives to developers and other team members (such as contractors and architects).

Marketing the Primer, Resource Center, educational and incentive programs is vital to their success. The marketing campaign should create a “brand” or identity for sustainable building to incorporate this concept into everyday life for the building industry and the general public. As part of the marketing effort, the City should recognize, **reward** and publicize outstanding projects. This could happen in conjunction with a sustainable building conference or existing awards program.

Finally, to keep pace with constantly changing technologies and regulations, and to continually raise the bar, the Primer’s performance guidelines should be **evaluated** and modified on a biennial basis. At some point, sustainable building may become so mainstream that the guidelines will not be necessary. In addition, if the other City initiatives, such as the educational and incentive programs, are successfully implemented, they too should be assessed biennially to determine whether they should continue, be modified, or replaced with new initiatives. Again, once sustainable building becomes more accepted and practiced, many of the City programs may be retired.